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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,982	07/14/2003	David So	11385-3-999	7807

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EXAMINER

RODRIGUEZ, RUTH C

ART UNIT PAPER NUMBER

3677

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/619,982	Applicant(s) SO, DAVID	
	Examiner Ruth C. Rodriguez	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-7, 16-18 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-7, 16-18 and 23-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 26 and 27 are objected to because of the following informalities: Claims 26 and 27, "stone" in the first should be replaced with --method--. Correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 30 is rejected under 35 U.S.C. 102(b) as being anticipated by Fine (US D141,259)..

A cut stone comprises a pavilion portion having a culet, a crown portion, a girdle separating the pavilion portion from the crown portion and a plurality of pavilion main facets located between the culet and the girdle (Figs. 1-3). Each pavilion main facet has a dimension that increases from the girdle towards the culet (Figs. 2 and 3). Adjacent pavilion main facets have different widths (Figs. 2 and 3). The stone is a round cut (Figs. 1 and 3).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-7, 16-18 and 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fine.

Fine discloses a cut stone comprises a pavilion portion having a culet (Fig. 2), a crown portion and a girdle separating the pavilion portion from the crown portion (Fig. 3). A plurality of pavilion main facets where each pavilion main facet extends from the girdle to the culet (Figs. 2 and 3). The stone is a round cut (Figs. 1-3). Fine fails to disclose that adjacent pavilion main facets have different widths. However, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to have adjacent pavilion main facets having different widths since a change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Doing so, will alter the brilliance, radiance, scintillation and other properties of the gemstone to satisfy users preference.

In accordance with the above modification, since adjacent pavilion main facets have different widths it will be obvious to one having ordinary skill in the art at the time the invention was made that the pavilion main facets will alternate in a clockwise

direction between thick pavilion main facets and thin pavilion main facets when all adjacent pavilion main facets are provided with different widths.

In accordance with the above modification, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to have the thick pavilion main facets being at least about 30 percent thicker than the thin pavilion main facets and where the thick pavilion main facets being at most 60 percent thicker than the thin pavilion main facets because a change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Doing so, will alter the brilliance, radiance, scintillation and other properties of the gemstone to satisfy users preference.

Fine also discloses that:

- The stone further comprises a table on the crown (Figs. 1 and 2). The number of pavilion main facets equals the number of sides of the table (Figs. 1-3).
- The stone further comprises a table on the crown. A plurality of bezel facets have an upper vertex at the table and a lower vertex at the girdle. The pavilion main facets terminate in an upper vertex at the girdle in substantial alignment with the lower vertex of a corresponding bezel facet of the crown (Fig. 2).
- The stone further comprises a plurality of lower girdle facts positioned between adjacent pavilion main facets (Figs. 2 and 3).

Fine discloses that a first pavilion main facet and a second pavilion main facet (Figs. 2 and 3). The first pavilion main facet has a first vertex at the culet and a first angle at the first vertex (Figs. 2 and 3). The second pavilion main facet, that is adjacent

to the first pavilion main facets, has a second vertex at the culet and a second angle at the second vertex (Figs. 2 and 3). Fine fails to disclose that the first angle is greater than the second angle, however, it would have been obvious to one having ordinary skill in the art at the time invention was made to have the first angle being greater than the second angle since a change in the size of a prior art device is a design consideration within the skill of the art and it would be obvious to one having ordinary skill in the stone art that the first angle will be different to the second angle as a result of changing the width of the adjacent pavilion main facet as explained above. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Doing so, will alter the brilliance, radiance, scintillation and other properties of the gemstone to satisfy users preference.

Fine fails to disclose that the first angle is about 42 degrees and the second angle is about 30 degrees, however, as explained above by changing the width of adjacent pavilion main facets, the first angle will be changed and could be about 42 degrees and the second angle will also change and could be about 30 degrees. Doing so, will alter the brilliance, radiance, scintillation and other properties of the gemstone to satisfy users preference.

A method for cutting a stone comprises: (a) forming a crown portion (Figs. 1 and 2); (b) forming a pavilion portion including a culet (Figs. 2 and 3); (c) forming a girdle separating the crown portion from the pavilion portion (Figs. 2); and (d) forming a plurality of pavilion main facets on the pavilion portion between the first culet and the girdle (Figs. 2 and 3). A first pavilion main facet and a second pavilion main facet (Figs. 2 and 3). The first pavilion main facet has a first vertex at the culet and a first angle at

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the first vertex (Figs. 2 and 3). The second pavilion main facet, that is adjacent to the first pavilion main facets, has a second vertex at the culet and a second angle at the second vertex (Figs. 2 and 3). The stone is a round cut (Figs. 1 and 3). Fine fails to disclose that the first angle is greater than the second angle, however, it would have been obvious to one having ordinary skill in the art at the time invention was made to have the first angle being greater than the second angle since a change in the size of a prior art device is a design consideration within the skill of the art and it would be obvious to one having ordinary skill in the stone art that the first angle will be different to the second angle as a result of changing the width of the adjacent pavilion main facet as explained above. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Doing so, will alter the brilliance, radiance, scintillation and other properties of the gemstone to satisfy users preference.

Each pavilion main facet extends from the girdle to the culet (Figs. 2 and 3). The stone is round cut (Figs. 1 and 3). Fine fails to disclose that adjacent pavilion main facets have different widths. However, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to have adjacent pavilion main facets having different widths since a change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Doing so, will alter the brilliance, radiance, scintillation and other properties of the gemstone to satisfy users preference.

A method for cutting a stone comprises: (a) forming a crown portion (Figs. 1 and 2); (b) forming a pavilion portion including a culet (Figs. 2 and 3); (c) forming a girdle separating the crown portion from the pavilion portion (Figs. 2); and (d) forming a plurality of pavilion main facets on the pavilion portion (Figs. 2 and 3). Each pavilion main facet extends from the girdle to the culet (Figs. 2 and 3). The stone is round cut (Figs. 1 and 3).

A cut stone comprises a pavilion portion having a culet, a crown portion, a girdle separating the pavilion portion from the crown portion and a plurality of pavilion main facets (Figs. 1-3). Each of the pavilion main facets is located between the culet and the girdle (Figs. 2 and 3). A first pavilion main facet has a first vertex at the culet and a first angle at the first vertex (Figs. 2 and 3). A second pavilion main facet, that is adjacent to the first pavilion main facet, has a second vertex at the culet and a second angle at the second vertex (Figs. 2 and 3). Fine fails to disclose that the first angle is greater than the second angle, however, it would have been obvious to one having ordinary skill in the art at the time invention was made to have the first angle being greater than the second angle since a change in the size of a prior art device is a design consideration within the skill of the art and it would be obvious to one having ordinary skill in the stone art that the first angle will be different to the second angle as a result of changing the width of the adjacent pavilion main facet as explained above. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Doing so, will alter the brilliance, radiance, scintillation and other properties of the gemstone to satisfy users preference.

A cut stone comprises a pavilion portion having a culet (Fig. 2), a crown portion having a table (Fig. 1) and a girdle separating the pavilion portion from the crown portion (Fig. 3). A plurality of pavilion main facets where each pavilion main facet extends from near the culet to the girdle (Figs. 2 and 3). The pavilion main facets vary in width (Figs. 2 and 3). The stone is a round cut (Figs. 1-3).

Mehta also disclose that the stone further comprises a table on the crown (Figs. 1 and 3). The crown has a plurality of bezel facets (Figs. 1 and 3). Each of the bezel facets has an upper vertex at the table and a lower vertex at the girdle (Figs. 1 and 3). The pavilion main facets terminate in an upper vertex at the girdle in substantial alignment with the lower vertex of a corresponding bezel facet of the crown (Fig. 3).

A method for cutting a stone comprises: (a) forming a crown portion (Fig. 1); (b) forming a pavilion portion including a culet (Fig. 2); (c) forming a girdle separating the crown portion from the pavilion portion (Fig. 3); and (d) forming a plurality of pavilion main facets on the pavilion portion (Fig. 2 and 3). The pavilion main facets vary in thickness (Figs. 2 and 3). Each pavilion main facet extends from near the culet to the girdle (Figs. 2 and 3). The stone is a round cut (Figs. 1-3).

A cut stone comprises a pavilion portion having a culet (Fig. 2), a crown portion having a table (Fig. 1) and a girdle separating the pavilion portion from the crown portion (Fig. 3). A plurality of pavilion main facets extends from near the culet towards the girdle (Figs. 2 and 3). A plurality of lower girdle facets positioned between adjacent pavilion main facets. The pavilion main facets vary in width (Figs. 2 and 3). The stone is a round cut (Figs. 1-3).

A method for cutting a stone comprises: (a) forming a crown portion (Fig. 1); (b) forming a pavilion portion including a culet (Fig. 2); (c) forming a girdle separating the crown portion from the pavilion portion (Fig. 3); (d) forming a plurality of pavilion main facets on the pavilion portion where the pavilion main facets vary in thickness (Figs. 2 and 3); and (e) forming a plurality of lower girdle facets between adjacent pavilion main facets on the pavilion portion (Fig. 2 and 3). The stone is a round cut (Figs. 1-3).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mehta in view of Freund (US D 488,740 S).

Mehta discloses a stone having all the features mentioned above in paragraph 3 for the rejection of claim 3. The stone further comprises a table on the crown. The table has a plurality of sides. Mehta fails to disclose that the number of pavilion main facets equals the number of sides of the table. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the number of pavilion main facets equaling the number of sides of the table since this change is considered a design consideration in the jewelry art. As taught by Freund,

the number of sides of the table can coincide with the number of the pavilion main facets in order to obtain a different appearance of a stone.

Response to Arguments

Applicant's arguments filed 06 February 2006 have been fully considered but they are not persuasive.

8. Applicant's argument with respect to Freund, Fine and Mehta is that these references fail to disclose the limitation that adjacent pavilion main facets have different widths when the pavilion main facet extends from the culet to the girdle. However, as explained in the new rejection of the claims changing the dimension of a prior art device is considered a design consideration within the skill of the gemstone art since it is well known in the gemstone art and readily apparent and obvious that a change in the size, shape and angles for facets of gemstone merely alters the aesthetics of the gemstone to obtain properties including brilliance, radiance, etc. for the purpose of mere user preference. It is also extremely well known that altering these features will produce different properties radiating from the gemstone, depending on the changes and alterations made. Therefore, no unexpected results are obtain from such a change.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kraus (US D59,234), Heller (US D140,283), Fine (US D141,258 and US D141,259), Westreich (US D204,199), Polakiewicz (US 3,763,665), Bachar (US D392,590), Itzkowitz (US 5,713,219), Fajerstein (US D437,671), Cheng (US D453,120), Tolkowsky (US D455,367), Rydlewicz (US D459,676), Kagaya (US D460,378), Cohen (US D460,711), Greeff (US D463,315), Tolkowsky (US D483,290), Markowitz (US 6,668,585) and Mehta (US D490,014) are cited to show state of the art with respect to cut stones having some of the features being claimed by the current application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C. Rodriguez whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

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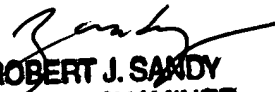
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth C. Rodriguez
Patent Examiner
Art Unit 3677

RCR

rcr

April 30, 2006


ROBERT J. SANDY
PRIMARY EXAMINER